

U.S. Application No.  
Unknown

12-11-01  
International Application No.  
PCT/AU00/00639

1014 Rec'd PCT/PTO 05 DEC 2001  
Attorney Docket No.  
DAY1138.001APC

10/009745

Date: December 5, 2001

Page 1

**TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 USC 371**

International Application No.: PCT/AU00/00639  
International Filing Date: June 7, 2000  
Priority Date Claimed: June 7, 1999  
Title of Invention: A CHARGING METHOD AND SYSTEM  
Applicant(s) for DO/EO/US: Sydney Gordon Low

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

- (X) This is a **FIRST** submission of items concerning a filing under 35 USC 371.
- (X) This express request to begin national examination procedures (35 USC 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 USC 371(b) and PCT Articles 22 and 39(1).
- (X) A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
- (X) A copy of the International Application as filed (35 USC 371(c)(2))
  - a) ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b) ☒ has been transmitted by the International Bureau.
  - c) ☒ a copy of Form PCT/IB/308 is enclosed.
  - d) ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
- (X) Amendments to the claims of the International Application under PCT Article 19 (35 USC 371(c)(3))
  - a) ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b) ☐ have been transmitted by the International Bureau.
  - c) ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d) ☒ have not been made and will not be made.
- (X) Notification of Transmittal of International Search Report with attached International Search Report.
- (X) An oath or declaration of the inventor (35 USC 371(c)(4)).
- (X) A copy of the International Preliminary Examination Report with any annexes thereto, such as any amendments made under PCT Article 34.
- (X) An Information Disclosure Statement under 37 CFR 1.97 and 1.98 and Form PTO-1449 with six (6) references.
- (X) Two assignment documents for recording. Separate cover sheets in compliance with 37 CFR 3.28 and 3.31 are included.
- (X) A **FIRST** preliminary amendment (with attached abstract on one page).

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- (X) A power of attorney and/or address letter.
- (X) International Application as published.
- (X) Two (2) pages of drawings.
- (XI) PCT Form PCT/IB/308.
- (X) The present application qualifies for small entity status under 37 C.F.R. § 1.27.
- (X) A return prepaid postcard.
- (X) The following fees are submitted:

				FEES
BASIC FEE				\$1040
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total Claims	16 - 20 =	0 ×	\$18	\$0
Independent Claims	6 - 3 =	3 ×	\$84	\$252
Multiple dependent claims(s) (if applicable)			\$270	\$0
TOTAL OF ABOVE CALCULATIONS				\$1,292
Reduction by 1/2 for filing by small entity (if applicable). Verified Small Entity statement must also be filed. (NOTE 37 CFR 1.9, 1.27, 1.28)				\$646
TOTAL NATIONAL FEE				\$646
TOTAL FEES ENCLOSED				\$646

- (X) A check in the amount of \$646 to cover the above fees is enclosed.
- (X) Fee for recording the enclosed assignments (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property.
- (X) The Commissioner is hereby authorized to charge only those additional fees which may be required, now or in the future, to avoid abandonment of the application, or credit any overpayment to Deposit Account No. 11-1410.

SEND ALL CORRESPONDENCE TO:

John M. Carson  
Reg. No. 34,303  
Customer No. 20,995

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531 Rec'd PATENT 05/10/2001

DAVI138.001APC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sydney Gordon Low ) Group Art Unit Unknown  
Appl. No. : Unknown )  
Filed : Herewith )  
For : A CHARGING METHOD AND )  
SYSTEM )  
Examiner : Unknown )

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to examination of the above-captioned application, please amend the application as follows:

**IN THE SPECIFICATION:**

**Please amend the specification as follows:**

On page 1, line 3, please insert-- Field of the Invention --;

On page 1, line 6, please insert-- Background of the Technology --;

On page 1, line 19, please insert-- Summary of Certain Inventive Aspects --;

On page 2, line 8, please insert-- Brief Description of the Drawings --;

On page 2, line 15, please insert-- Detailed Description of Certain Inventive Embodiments --;

On page 6, line 1, please replace "Claims" with-- WHAT IS CLAIMED IS: --

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Please add an abstract that is enclosed on a separate page to this Preliminary Amendment.

**IN THE CLAIMS:**

**Please cancel Claims 8 and 9 without prejudice.**

**Please add the following new Claims 10-18 as follows:**

10. (New) A charging system, comprising:

a database server configured to maintain a record of content of a communications network accessed by a user of the network;

means for determining if said content is affiliate content;

first means for generating a charge for an affiliate based on access of said affiliate content; and

second means for generating a charge for said user based on access of other content of said record.

11. (New) The charging system of Claim 10, wherein said record includes locations of a communications network which represents said content, and wherein said means for determining are configured to determine if said locations correspond to affiliate content.

12. (New) The charging system of Claim 10, wherein a plurality of said affiliate have respective affiliate content, and wherein said first means for generating a charge generate a charge for said affiliate based on said user accessing said respective affiliate content.

13. (New) The charging system of Claim 10, wherein said database server generates for said affiliate an affiliate record of said locations corresponding to said respective affiliate content accessed by said user.

14. (New) The charging system of Claim 13, wherein said affiliate record includes access time for each location and for each user.

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15. (New) The charging system of Claim 14, wherein said affiliate record is accessible via the communications network.

16. (New) A charging system, comprising:

a database server configured to maintain a record of content of a communications network accessed by a user of the network;

means for determining on the basis of said record a charge for an affiliate based on access of content associated with said affiliate; and

means for determining on the basis of said record a charge for said user based on access of other content of said record.

17. (New) A computer readable program product comprising computer program code for charging access in a communications network, said computer program code providing for execution of a method comprising:

maintaining a record of content of a communications network accessed by a user of the network;

determining if said content is affiliate content;

generating a charge for an affiliate based on access of said affiliate content; and

generating a charge for said user based on access of other content of said record.

18. (New) A computer readable program product comprising computer program code for charging access in a communications network, said computer program code providing for execution of a method comprising:

maintaining a record of content of a communications network accessed by a user of the network;

determining on the basis of said record a charge for an affiliate based on access of content associated with said affiliate; and

determining on the basis of said record a charge for said user based on access of other content of said record.

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**REMARKS**

The foregoing amendments are to more closely conform the application to U.S. practice.  
No new matter is added. Entry of the amendments is respectfully requested.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 12/5/01

By: 

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## A CHARGING METHOD AND SYSTEM

### Abstract of the Disclosure

A charging method that charges for use of a communications network maintains a record of content of a communications network accessed by a user of the network. The method determines if the content is affiliate content and generates a charge for an affiliate based on access of the affiliate content. Further, the method generates a charge for the user based on access of other content of the record.

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A CHARGING METHOD AND SYSTEM

5 The present invention relates to a method and system for charging for use of a communications network, such as the Internet.

10 Most Internet users currently connect to the Internet via the equipment of an Internet service provider (ISP), and are charged for the time that they remain connected. The applicant has developed a method and system to provide users with access to certain content, without attracting the session connection charge, as described in the specification of International Patent Application No. PCT/AU00/00418, herein incorporated by reference and referred to as "the access system specification". The "free" content can be provided by organisations or individuals that are considered to be affiliates or associates of the ISP. The cost of providing the connection to the free content however still needs to be recovered by the ISP. Also the affiliates, in return for providing the free content, will wish to receive information which indicates that they are deriving a benefit from the affiliation with the ISP. It is desired to provide a method and system for charging which addresses the above problems or at least provides a useful alternative to existing charging methods or systems.

20 In accordance with the present invention there is provided a charging method, including:

maintaining a record of content of a communications network accessed by a user of the network;

determining if said content is affiliate content;

25 generating a charge for an affiliate based on access of said affiliate content; and  
generating a charge for said user based on access of other content of said record.

The present invention also provides a charging method, including:

30 maintaining a record of content of a communications network accessed by a user of the network;



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determining on the basis of said record a charge for an affiliate based on access of content associated with said affiliate; and

determining on the basis of said record a charge for said user based on access of other content of said record.

5

The present invention also provides a charging system and charging software for executing steps of the method.

10 A preferred embodiment of the present invention is hereinafter described, by way of example only with reference to the accompanying drawings, wherein:

Figure 1 is a block diagram of a preferred embodiment of a communications network access system; and

Figure 2 is a flow diagram of a preferred embodiment of a charging method executed by the system.

15

A communications access system, as shown in Figure 1, includes a plurality of remote access servers (RASs) 4, a layer four or higher switch 6, a database server 8, a web server system 10 and a router 12. The RASs 4 are provided to allow the computers 14 of remote users to dial into the system using standard telecommunication lines and modems and connect to the input ports of the RASs 4, respectively. On connection to a port of a RAS 4, the RAS 4 and the user's computer 14 establish a unique TCP/IP session and the IP traffic for that session is switched by the switch 6. Once the user is authenticated or approved, as described below, the user's computer 14 is allowed to access requested data on the Internet 16. The web server system 10 is used to control pages presented to a user 14 connected to the RAS 4 and handle authentication using a member profile database maintained on the database server 8, as described below. A RADIUS (Remote Authentication Dial In User Service) authentication server 11 is also provided for use in authentication. As far as the user 14 is concerned, the equipment 4, 6, 8, 10, 11 and 12 of the access system is part of the Internet.

30

The equipment 4 to 12 preferably includes standard commercially available hardware and basic database, web server and Internet access software which is known to those skilled

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in the art and is used in the access systems of most ISPs. The equipment 4 to 12 then also includes unique program code to manage and control each session. The layer four or higher switch 6 is another exception. The switch 6 is normally used by ISPs to balance the traffic handled by the RASs 4. An example of a suitable layer four switch is the AceDirector AD3™  
5 produced by Alteon WebSystems Inc. The access system differs from that offered by ISPs, as described in the access system specification, in that the layer four switch 6 is used to connect users to the web server system 10 and control access to the Internet 16 for the users 14 on the basis of a limited number of access states encoded in the switch 6. Alternatively the unique program code and the equipment 4 to 12 could be substituted, entirely or in part, by unique  
10 integrated circuits, such as ASICs, to execute the same functions. The system is the same as that described in the access system specification, except that it further includes software components executed by either the database server 8 or the web server 10 to execute the charging method described below.

15 On connecting to the Internet using the access system, all of the locations, or URLs, which the user 14 accesses are passed by the switch 6 and stored in the database 8 as part of a member access record. With the locations, an initial time of access is also recorded. This occurs at step 20 as shown in Figure 2. Thus for each TCP session for a user, the member access record indicates the start of the session and holds a set of locations and initial access  
20 times. The differences between the initial access times provide information on the time which a user spends at each location during the session.

When the access system is to be used as a charging system, to facilitate charging of users and affiliates who provide free content, the member access records are retrieved from  
25 the database 8 at step 22 and sequentially processed. A determination is made at step 24 as to whether the recorded locations of a member or user record correspond to affiliate locations. Affiliate locations are those locations on the Internet 16 or web server 10 designated by URLs which hold free content of parties affiliated with the provider of the system. If the location is not an affiliate location, then this is reported at step 26 and a charge record compiled for the  
30 user based on the user's access of the locations in the member access record which are not affiliate locations. The charge may be a standard flat rate charge or a time rate charge based

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on the time of access, or any other charging basis which may be employed by ISPs to charge users.

If it is determined at step 24 that a location is an affiliate location, then this is reported at step 28 and details of the access of the affiliate location retained in order to charge the affiliate. An affiliate record is generated at step 30 based on the captured data which would include the affiliate locations accessed, the access times, and the period of time for which the locations are accessed, together with identifying details concerning the user accessing the locations. The affiliate record is stored on the database 8 and can be accessed as part of a secure web site on the web server 10 for affiliates. The data held in the affiliate records can be reported to the affiliates in various formats on the secure web site. The affiliates can be charged automatically at step 28 based on time rates for access or other charging schemes based on the user's access of the affiliate locations. The charge can also be determined and rendered after subsequent processing of the affiliate record. The charges can be passed on to members and affiliates in various ways, such as by invoicing or electronic credit card transactions.

The above charging method and system is particularly advantageous as it establishes for ISPs an entirely different charging model to that which is presently exploited. Content providers, i.e. affiliates, can be charged as well as users who connect to the Internet. This is also particularly advantageous for users as they are provided with access to content free of charge. The content providers are also provided with detailed information by the affiliate record concerning the benefit they are deriving from providing the content. The actual locations accessed and the user details are provided to the content providers. As the access system has access profiles attached to each user, these profile details can also be provided to content providers in the affiliate records to provide further information on the users accessing their content.

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Many modifications will be apparent for those skilled in the art without departing from the scope of the present invention as herein described with reference to the accompanying drawings.

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## CLAIMS:

1. A charging method, including:  
maintaining a record of content of a communications network accessed by a user of the  
5 network;  
determining if said content is affiliate content;  
generating a charge for an affiliate based on access of said affiliate content; and  
generating a charge for said user based on access of other content of said record.
- 10 2. A charging method as claimed in claim 1, wherein said record includes locations of a  
communications network which represents said content, and said determining step involves  
determining if said locations correspond to affiliate content.
- 15 3. A charging method as claimed in claim 1, including a plurality of said affiliate having  
respective affiliate content, and generating the charge for said affiliate based on said user  
accessing said respective affiliate content.
- 20 4. A charging method as claimed in claim 1, including generating for said affiliate an  
affiliate record of said locations corresponding to said respective affiliate content accessed by  
said user.
5. A charging method as claimed in claim 4, wherein said affiliate record includes access  
time for each location and for each user.
- 25 6. A charging method as claimed in claim 5, wherein said affiliate record is accessible  
via the communications network.
7. A charging method, including:  
maintaining a record of content of a communications network accessed by a user of the  
30 network;

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determining on the basis of said record a charge for an affiliate based on access of content associated with said affiliate; and

determining on the basis of said record a charge for said user based on access of other content of said record.

5

8. A charging system including system components for executing the steps of the charging method as claimed in any one of the preceding claims.

9. Charging software stored on a computer readable storage medium and having code for

10 executing the steps of the charging method as claimed in any one of claims 1 to 7.



## Figure 1

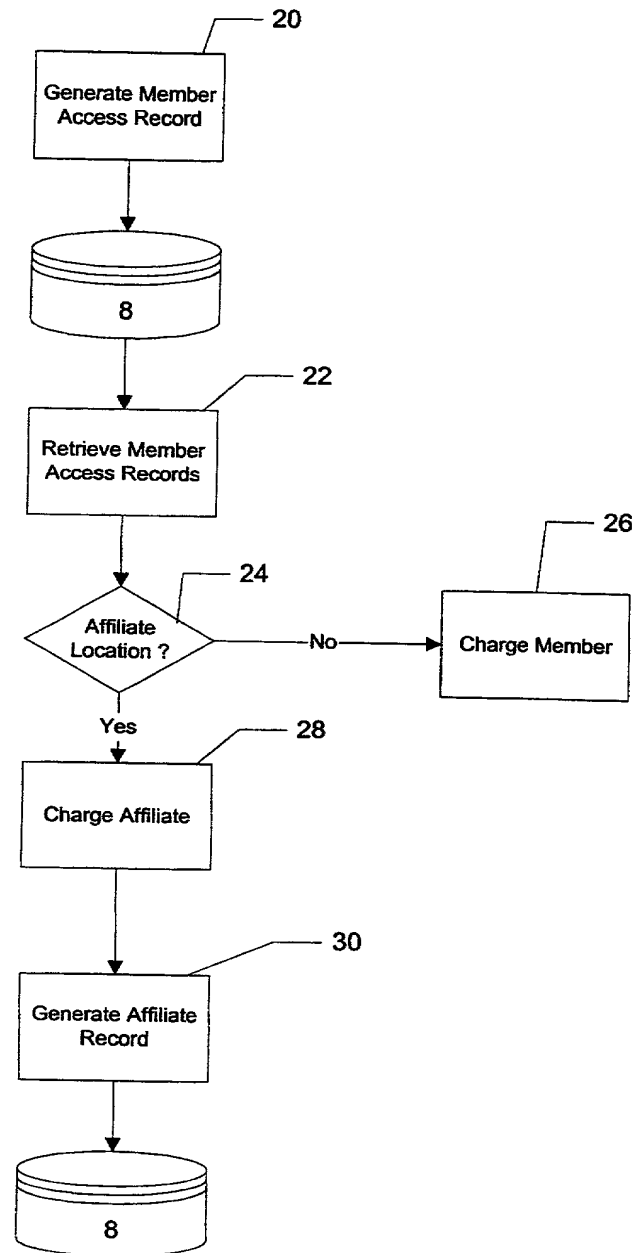


Figure 2



**DECLARATION AND POWER OF ATTORNEY - USA PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled A CHARGING METHOD AND SYSTEM

the specification of which:

- (a) ☒ is attached hereto; or
- (b) ☐ was filed on \_\_\_\_\_ as ☐ Application No. 0 / \_\_\_\_\_ or ☐ Express Mail No., as Application No. not yet known \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable); or
- (c) ☒ was described and claimed in PCT International Application No. PCT/AU00/00639 filed on 7 June, 2000 and as amended under PCT Article 19 on \_\_\_\_\_ (if any) and/or under PCT Article 34 on \_\_\_\_\_ (if any).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above;

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56;

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent, design or inventor's certificate or any PCT international application(s) listed below and have also identified below any foreign application(s) for patent, design or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed for the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN APPLICATION(S)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 U.S.C. § 119
Australia	PQ0808/99	7 June 1999	<input checked="" type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below, and insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56, which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S.A. Application(s)

Application No.: \_\_\_\_\_ Filing Date: \_\_\_\_\_ Status: \_\_\_\_\_

POWER OF ATTORNEY: I hereby appoint the registrants of Knobbe, Martens, Olson & Bear, LLP, 620 Newport Center Drive, Sixteenth Floor, Newport Beach, California 92660, Telephone (714) 760-0404, **Customer No. 20,995**, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith (if this application is assigned, I acknowledge that the appointed individuals do not represent me, and that instead they represent the assignee).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or any patent issued thereon.

-----  
Full name of sole or first inventor: 1-00 Sydney Gordon LOWInventor's signature [Signature] Day 13 Month August Year 2001Residence (city and country): Kew, Victoria, AustraliaCitizenship: Australian AUXPost Office Address: 9 Evans Road, Kew, Victoria 3101, Australia

Full name of second inventor: \_\_\_\_\_

Inventor's signature \_\_\_\_\_ Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

Residence (city and country): \_\_\_\_\_

Citizenship: \_\_\_\_\_

Post Office Address: \_\_\_\_\_

Full name of third inventor: \_\_\_\_\_

Inventor's signature \_\_\_\_\_ Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

Residence (city and country): \_\_\_\_\_

Citizenship: \_\_\_\_\_

Post Office Address: \_\_\_\_\_

Send Correspondence To:

KNOBBE, MARTENS, OLSON &amp; BEAR, LLP

**Customer No. 20,995**